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Hallman et al.

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(54) **MASKED PRESENSITIZED PRINTING PLATE INTERMEDIATES AND METHOD OF IMAGING SAME**

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Related U.S. Application Data

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(52) **U.S. Cl.** 430/302; 430/273.1

(58) **Field of Search** 430/302, 273.1

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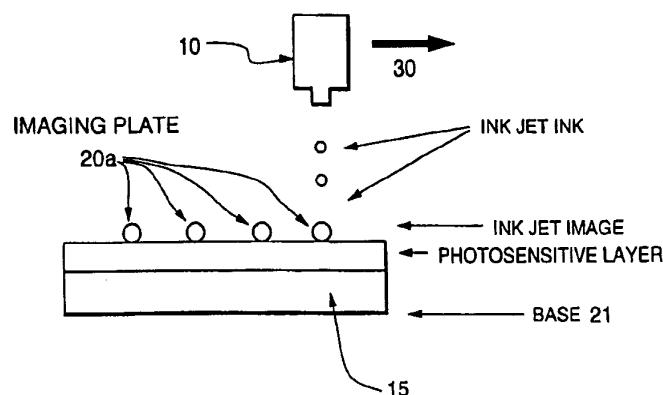
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(57) **ABSTRACT**

A method for forming an image on a printing plate intermediate having a radiation transparent removable coating layer is disclosed. An image mask, opaque to ultraviolet radiation, is applied to the coating layer with an ink jet system. After the plate intermediate is exposed with ultraviolet radiation, the image mask and coating layer are removed, and plate intermediate developed.

21 Claims, 5 Drawing Sheets





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**(12) United States Patent
Kanga**

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**(54) LASER IMAGED PRINTING PLATES
COMPRISING A MULTI-LAYER SLIP FILM**

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(58) Field of Search 430/5, 271.1, 273.1,
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467, 395, 401.1

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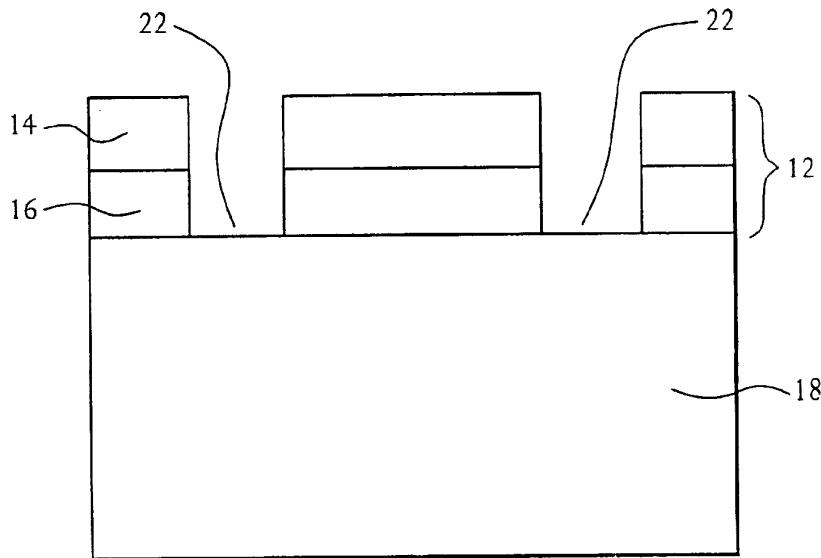
Primary Examiner—Stephen R. Funk

(74) Attorney, Agent, or Firm—Woodcock Washburn LLP

(57) ABSTRACT

The present invention provides a method of making a laser imaged printing plate. First, a solid, uncured printing plate is modified with both a UV absorber and an IR absorber. This is most conveniently done by constructing a multilayer slip film comprising at least two layers wherein at least one layer comprises a strong UV absorber, and wherein at least one other layer comprises an IR absorber having high absorptivity. The multilayer slip film is already adapted for use with a printing plate and is applied in the usual fashion to the surface of the uncured printing plate. The printing plate with the multilayer slip film can be stored for a time, or used immediately, as the printer's needs dictate. In use, the multilayer slip film is ablated from the photopolymer using an IR laser operating at a selected wavelength to create an in situ negative. The resulting negative can be subjected to typical UV flood exposure and development.

19 Claims, 2 Drawing Sheets



the Bichotière referred to in those letters, *partie and making part of the same.*

IMPROVEMENT IN HEATING APPARATUS.

Letters Patent No. 112,233, dated February 28, 1871.

MICHIEL, G. FAGAN, OF TROY, NEW YORK, ASSIGNEOR TO HIMSELF,
AND ALBERT G. COUSE, OF SAME PLACE.

United States Patent Office.